

Sorting Algorithms:

Show the steps of sorting the following array elements using:

1. Bubble sort
2. Insertion sort
3. Selection sort

6	8	1	4	3	7	2	5
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Sorting Algorithms:

1. Bubble sort

6	8	1	4	3	7	2	5
6	1	4	3	7	2	5	8
1	4	3	6	2	5	7	8
1	3	4	2	5	6	7	8
1	3	2	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8

(size -1) iterations

2. Insertion sort

6	8	1	4	3	7	2	5
6	8	1	4	3	7	2	5
1	6	8	4	3	7	2	5
1	4	6	8	3	7	2	5
1	3	4	6	8	7	2	5
1	3	4	6	7	8	2	5
1	2	3	4	6	7	8	5
1	2	3	4	5	6	7	8

- Each red element should be inserted in the right place in the next iteration, and shifting the elements after it.
- (size-1) iterations

3. Selection sort

6	8	1	4	3	7	2	5
1	8	6	4	3	7	2	5
1	2	6	4	3	7	8	5
1	2	3	4	6	7	8	5
1	2	3	4	5	7	8	6
1	2	3	4	5	6	8	7
1	2	3	4	5	6	7	8

- Each two red elements in the same row should be swapped in the next iteration
- (size-1) iterations